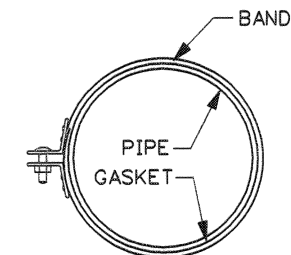
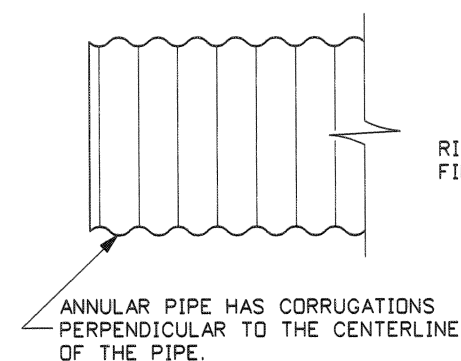


TYPES 1-A & 2-A  
ANNULAR COUPLING BAND

DOUBLE BAR AND STRAP-TYPE 3  
HUGGER COUPLING BAND



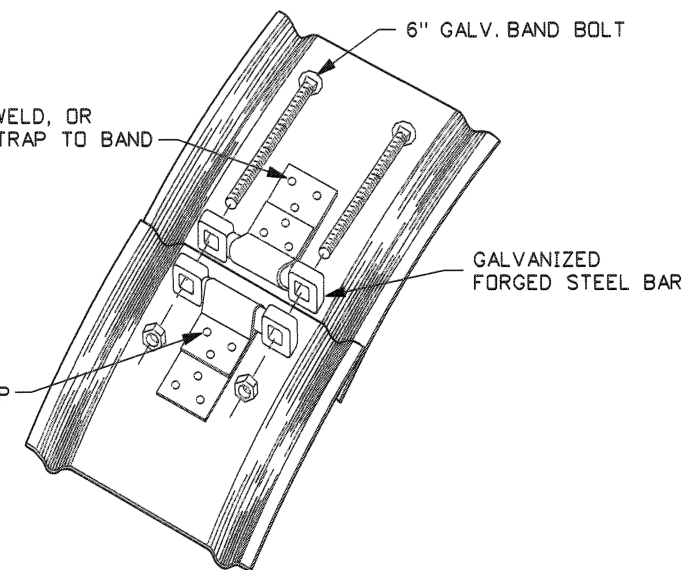
TYPE 1  
SINGLE PIECE BAND



ANNULAR CMP

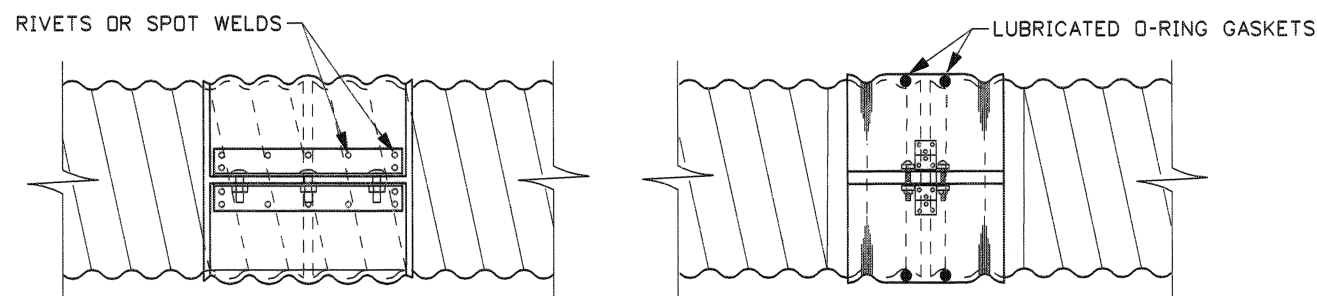
RIVET, SPOT, WELD, OR  
FILLET WELD STRAP TO BAND

SPOT WELD  
LOOP IN STRAP



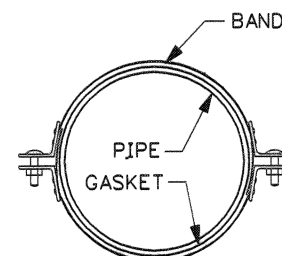
BAND TYPE 3  
BAR & STRAP COUPLING  
(SINGLE STRAP)

NOTES

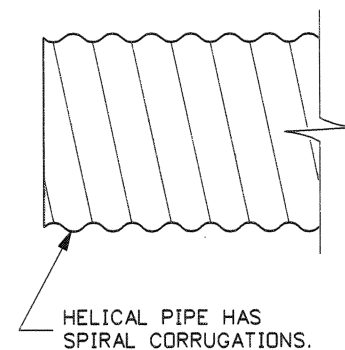


TYPE 1-B & 2-B  
HELICAL COUPLING BAND

SINGLE BAR AND STRAP-TYPE 3  
HUGGER COUPLING BAND

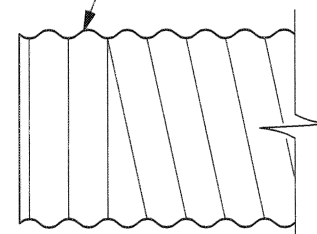


TYPE 2  
TWO PIECE BAND

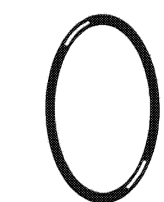


HELICAL CMP

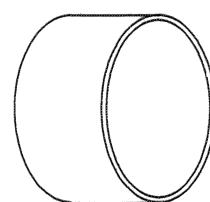
SEE NOTE NO. 5



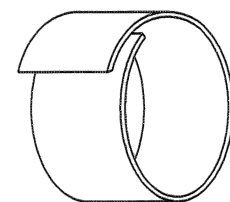
REFORMED HELICAL CMP



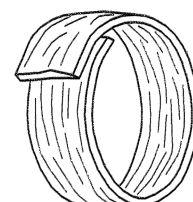
O-RING GASKET



SLEEVE GASKET



STRIP GASKET



MASTIC SEALANT GASKET

STANDARD CORRUGATED STEEL PIPE GASKET TYPES

1. THE REFORMED ENDS OF HELICAL CORRUGATED METAL PIPE MADE TO ACCEPT ANNULAR COUPLING BANDS SHALL BE UNIFORM AND SMOOTH IN APPEARANCE. PIPE WITH IRREGULAR REFORMED ENDS ARE NOT ACCEPTABLE.
2. SLEEVE AND STRIP GASKETS FOR COUPLING BANDS TYPE 1-A AND 1-B SHALL EXCEED THE WIDTH OF THE BAND BY A MINIMUM OF 1/4" ON BOTH EDGES. THE GASKETS SHALL FIT SNUGLY AROUND THE PIPES PRIOR TO INSTALLATION OF THE BAND.
3. ALL WELDS AND/OR EXPOSED FERROUS METAL ON COUPLING BANDS AND BAND CONNECTING HARDWARE SHALL BE REPAIRED IN ACCORDANCE WITH AASHTO M 36.
4. STEEL BAND THICKNESS SHALL BE AT LEAST 1/2 THE THICKNESS OR GAUGE OF THE PIPE. ALUMINUM BANDS SHALL BE THE SAME THICKNESS AS THE PIPE.
5. THE JOINTS FOR SIPHONS AND SEWERS SHALL BE WATERTIGHT AND PRESSURE TESTED PRIOR TO ACCEPTANCE, AS REQUIRED IN THE STANDARD SPECIFICATIONS.
6. TO PREVENT GALVANIC ACTION WHEN BANDS AND PIPES ARE OF AN UNLIKE METAL, THE BANDS SHALL BE ASPHALT COATED.
7. GASKET MATERIALS ARE NOT TO BE ALTERED, SEWN, OR PATCHED. THE USE OF SEALANTS AND/OR LUBRICANTS WITH BAND GASKETS MUST BE AS THE MANUFACTURER SPECIFIES. THE QUALITY AND CHEMICAL COMPOSITION OF SEALANTS AND LUBRICANTS WILL BE AS THE MANUFACTURER REQUIRES. CONTACT THE MANUFACTURER FOR DETAILS.
9. SPOT WELDED OR FILLET WELDED STRAPS ON BANDS SHALL BE OF EQUAL STRENGTH TO RIVETED STRAPS.
10. ALL RECOMMENDATIONS IN THE PIPE COUPLING BAND TABLE ARE TO BE CONSIDERED MINIMAL.
11. NOT TO SCALE.

| REVISIONS |       |     |     |      |     |     |      |
|-----------|-------|-----|-----|------|-----|-----|------|
| NO.       | DATE  | BY  | NO. | DATE | BY  | NO. | DATE |
| 1         | 2-76  |     | 6   | 3-05 | MSM |     |      |
| 2         | 2-77  |     |     |      |     |     |      |
| 3         | 9-93  | MSM |     |      |     |     |      |
| 4         | 12-95 | MSM |     |      |     |     |      |
| 5         | 6-02  | MSM |     |      |     |     |      |

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|--|
| SCALES SHOWN<br>ARE FOR 11" X 17"<br>PRINTS ONLY |
| CADD FILE NAME<br>d4a_0305.std                   |
| DRWG. ORIG. DATE:<br>APRIL, 1961                 |

IDAHO  
TRANSPORTATION  
DEPARTMENT

BOISE IDAHO

Assistant Chief Engineer (Development)

Chief Engineer

STANDARD DRAWING

WATERTIGHT COUPLING BANDS  
FOR CORRUGATED METAL PIPES

REQUIRES SHEET 2 OF 2

English

STANDARD DRWG. NO.

D-4-A

SHEET 1 OF 2

Professional Engineer \* Land Surveyor

REGISTERED

2240

3/4/05

STATE OF IDAHO

MILFORD MILLER


| PIPE COUPLING BAND TABLE          |                     |                   |                |                           |                         | PIPE CORRUGATION STYLE |                  |              | SIPHON | *<br>CULVERT | IRRIGATION | SEWER | UNDERDRAIN |
|-----------------------------------|---------------------|-------------------|----------------|---------------------------|-------------------------|------------------------|------------------|--------------|--------|--------------|------------|-------|------------|
| COUPLING TYPE                     | CORRUGATIONS        | PIPE SIZE         | COUPLING WIDTH | COUPLING BOLTS (NO.) DIA. | GASKET TYPE             | ANNULAR PIPE           | REFORMED HELICAL | HELICAL PIPE |        |              |            |       |            |
| TYPE 1-A<br>ANNULAR COUPLING BAND | 1½" x ¼" & 2⅜" x ½" | 6"-10"            | 7" (1 PIECE)   | (3) ⅜"                    | SLEEVE                  | X                      | X                |              | X      | X            | X          | X     | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 12"-15"           | 7" (1 PIECE)   | (3) ½"                    | SLEEVE                  | X                      | X                |              | X      | X            | X          | X     | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 18"-24"           | 12" (1 PIECE)  | (3) ½"                    | SLEEVE                  | X                      | X                |              | X      | X            | X          | X     | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 30"-42"           | 24" (1 PIECE)  | (5) ⅝"                    | SLEEVE                  | X                      | X                |              |        | X            | X          |       | X          |
| TYPE 1-B<br>HELICAL COUPLING BAND | 1½" x ¼" & 2⅜" x ½" | 6"-10"            | 7" (1 PIECE)   | (3) ⅜"                    | SLEEVE OR STRIP         |                        |                  | X            |        | X            | X          |       | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 12"-15"           | 7" (1 PIECE)   | (3) ½"                    | SLEEVE OR STRIP         |                        |                  | X            |        | X            | X          |       | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 18"-24"           | 12" (1 PIECE)  | (3) ½"                    | SLEEVE OR STRIP         |                        |                  | X            |        | X            | X          |       | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 30"-42"           | 24" (1 PIECE)  | (5) ⅝"                    | SLEEVE OR STRIP         |                        |                  | X            |        | X            | X          |       | X          |
| TYPE 2-A<br>ANNULAR COUPLING BAND | 1½" x ¼" & 2⅜" x ½" | 6"-10"            | 7" (2 PIECE)   | (4) ⅜"                    | SLEEVE, STRIP OR MASTIC | X                      | X                |              | X      | X            | X          | X     | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 12"-15"           | 7" (2 PIECE)   | (4) ⅜"                    | SLEEVE, STRIP OR MASTIC | X                      | X                |              | X      | X            | X          | X     | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 18"-24"           | 12" (2 PIECE)  | (6) ½"                    | SLEEVE, STRIP OR MASTIC | X                      | X                |              | X      | X            | X          | X     | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 30"-84"           | 24" (2 PIECE)  | (8) ½"                    | SLEEVE, STRIP OR MASTIC | X                      | X                |              | X      | X            | X          | X     | X          |
| TYPE 2-B<br>HELICAL COUPLING BAND | 1½" x ¼" & 2⅜" x ½" | 6"-10"            | 7" (2 PIECE)   | (4) ⅜"                    | SLEEVE, STRIP OR MASTIC |                        |                  | X            |        | X            | X          |       | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 12"-15"           | 7" (2 PIECE)   | (4) ⅜"                    | SLEEVE, STRIP OR MASTIC |                        |                  | X            |        | X            | X          |       | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 18"-24"           | 12" (2 PIECE)  | (6) ½"                    | SLEEVE, STRIP OR MASTIC |                        |                  | X            |        | X            | X          |       | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 30"-84"           | 24" (2 PIECE)  | (8) ½"                    | SLEEVE, STRIP OR MASTIC |                        |                  | X            |        | X            | X          |       | X          |
| TYPE 3<br>HUGGER CONNECTING BAND  | 2⅜" x ½" & 3" x 1"  | 12"-48" (GALV.)   | 7½" (STRAP)    | (2) 6" x ½"               | O-RING                  | X                      | X                |              |        | X            | X          | X     | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 54"-96" (GALV.)   | 10½" (2 STRAP) | (4) 6" x ⅝"               | O-RING                  | X                      | X                |              |        | X            | X          | X     | X          |
|                                   | 2⅜" x ½" & 3" x 1"  | 102"-144" (GALV.) | 12" (3 STRAP)  | (6) 6" x ⅞"               | O-RING                  | X                      | X                |              |        | X            | X          | X     | X          |

\* WATERTIGHT BANDS ARE NOT REQUIRED ON CULVERT INSTALLATIONS UNLESS SPECIFIED BY THE PLANS OR SPECIAL PROVISIONS


| REVISIONS |       |     |     |      |     |     |      |    |
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IDAHO  
TRANSPORTATION  
DEPARTMENT



BOISE IDAHO

  
ASSISTANT CHIEF ENGINEER (DEVELOPMENT)

  
CHIEF ENGINEER

STANDARD DRAWING

WATERTIGHT COUPLING BANDS  
FOR CORRUGATED METAL PIPES

REQUIRES SHEET 1 OF 2

English

STANDARD DRWG. NO.  
D-4-A

SHEET 2 OF 2

PROFESSIONAL ENGINEER \* LAND SURVEYOR

REGISTERED  
2240  
3/4/05

STATE OF IDAHO  
MILFORD MILLER